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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

NATIONAL WILDLIFE FEDERATION, *et al.*

Civil No. 01-640-RE

Plaintiffs,

v.

NATIONAL MARINE FISHERIES
SERVICE, *et al.*

Defendants.

**DEFENDANTS' RESPONSE TO
PLAINTIFFS' MOTION FOR
FURTHER INJUNCTIVE RELIEF**

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I. INTRODUCTION

As discussed below, since the Court issued its remand order, Federal Defendants have been collaborating with the other sovereigns to find a long term plan for operating the FCRPS. It is their hope that this long-term solution will inform the operation of the hydrosystem until the new biological opinion can be completed. Plaintiffs, however, want the Court to impose an interim operating plan for the next year rather than allow the collaborative process to develop that plan as part of an overall solution. Their plan would impose additional spring and summer spill requirements on the hydrosystem without regard to whether such spill is likely to increase the return of adult salmon and steelhead. Their spill proposal retains only a pretense of spreading the risk between spill and transportation. In short, Plaintiffs seek to impose substantial spill requirements; yet, they fail to demonstrate with credible evidence that such requirements will result in meaningful benefits to listed species.

Plaintiffs also ask the Court to revisit its decision not to order additional flow augmentation last summer. They ask the Court now to require Federal Defendants to operate the FCRPS reservoirs through the spring at their “upper flood control rule curve” on a bi-weekly basis. Further, they want the Court to order Federal Defendants to renegotiate international agreements under the Columbia River Treaty to require Canada to operate its dams differently. According to Plaintiffs, the changes that Canada will implement will make 4.5 million acre-feet of water available to create “a more natural hydrograph.” As with their requested spill relief, Plaintiffs fail to demonstrate with credible evidence that such requirements will actually provide benefits to fish.

Plaintiffs’ premise for their proposed interim operations is that the 2004 UPA is not

protective enough of fish. The 2004 UPA, however, is not a static blueprint for operating the FCRPS. As discussed below, the 2004 Biological Opinion expressly contemplates that the action agencies will use an adaptive management framework to adjust the proposed action to respond to new information. Implementing this framework, the Action Agencies have determined to modify their spill and transportation program for 2006 to reflect current scientific information. Some of the specific changes are the same as those proposed by Plaintiffs. However, unlike Plaintiffs' proposal, the 2006 operations are designed to increase the return of adult fish, and, where the current benefits of spill and transportation are uncertain, to "spread the risk" evenly between spill and transportation. In contrast, Plaintiffs' proposed spill operations are unlikely to provide any increase in the rate of return of adult salmon; indeed, the effects may be harmful.

Further, in requesting additional flow augmentation, Plaintiffs ignore the finding of the Independent Scientific Advisory Board ("ISAB") that the paradigm that additional flow will enhance in-river survival of fish, as they claim here, "does not agree with information now available." In addition, Plaintiffs ignore that requiring the United States Army Corps of Engineers ("Corps") and Bureau of Reclamation ("BoR") to make the upper rule curve an enforceable standard on a bi-weekly basis is infeasible because the agencies do not have complete control over whether such a standard can be attained and because to hold the reservoirs at the upper rule curve would have significant negative consequences. These negative consequences include dewatering of eggs and spawning nests for endangered Chum salmon below Bonneville dam and important non-listed Fall Chinook in the Hanford-Reach as well as impacts on other natural resources. Moreover, with respect to the upper rule curves at reservoirs

in Canada, it is neither legal nor appropriate for the Court to inject itself into Treaty matters as Plaintiffs seek. Moreover, even if the Court were to have the authority to do so, an agreement with Canada to modify the annual operating plan to require Canada to operate at the upper rule curve is not feasible, notwithstanding the beliefs of Plaintiffs' expert who has no apparent expertise in negotiations with Canada under the Treaty.

Plaintiffs attempt to downplay the magnitude of the scope of the changes they seek by describing them as modest, incremental changes to the 2004 Biological Opinion operations. But, make no mistake, if the Court were to embark down the path advocated by Plaintiffs, the changes to the operation of the FCRPS would be significant, risky and disruptive. In addition to the legal and practical obstacles to implementing the measures Plaintiffs request, and the adverse impacts the requested relief would have on operations that benefit other listed species, there would be many other consequences that Plaintiffs fail to grapple with in making their request. Such consequences are unnecessary; salmon can be protected during the remand without the overly broad approach Plaintiffs advocate. Such consequences, therefore, must be avoided. *National Wildlife Federation v. National Marine Fisheries Service*, 422 F.3d 782, 800 (9th 2005) (directing that this Court must ensure that any injunctive relief ordered must be “narrowly tailored” to remedy the specific, alleged Endangered Species Act (“ESA”) violation).

For these reasons, no need exists for the Court to involve itself in the short-term operations of the hydrosystem.^{1/} The Action Agencies have recognized the need to make

^{1/} *Norton v. Southern Utah Wilderness Alliance*, 124 S.Ct. 2373, 2381 (2004) (cautioning that courts are not empowered to enter far-reaching injunctions that inject the Court into day-to-day management decisions of administrative agencies); *Cobell v. Norton*, 392 F.3d 461, 472-75 (D.C. Cir. 2004) (striking down parts of injunction that placed the Court in the role of supervising the agency's day-to-day compliance with statutory mandate).

adjustments and have made them through the adaptive management process. Accordingly, Federal Defendants request the Court to deny Plaintiffs' Motion and to allow the Federal Defendants to focus on finding a long-term solution regarding the operation of the hydrosystem.

II. BACKGROUND

In response to the remand order, Federal Defendants are establishing a collaborative process with the sovereign states and tribes who are participants in the instant litigation. That process is focusing on long-term solutions rather than the short-term actions presented to the Court by Plaintiffs' Motion. This process is still under development, but will center around a policy working group supported by a technical group. The process will provide other parties in the litigation input to the collaborative process beyond that contemplated by the Court's remand order through the quarterly status reports. Federal Defendants hope to file a status report summarizing their collaboration plan with the Court before January 3, 2006.

Federal Defendants also have been developing a strategy for preparing a new biological opinion within 12 months. This new biological opinion will be consistent with the Court's 2003 and 2005 decisions. It will apply methodologies similar to the 2000 Biological Opinion, including life cycle analysis and passage modeling. Like the 2000 Biological Opinion, the new biological opinion will consider all the Hs (hydro, habitat, hatcheries, and harvest) and will ensure that progress is being made toward recovery. This strategy is being discussed with the sovereigns in the collaborative process. One goal of this approach will be to identify priority recovery actions and coordinated funding across the Hs for use in analyses for the biological opinion.

A. 2006 Operations

The proposed action considered by the 2004 Biological Opinion was intended to be dynamic. The 2004 Biological Opinion contemplated employing an adaptive management framework that would adjust the proposed action to respond to new information. 2004 BiOp at 6-26. Based on additional information and analysis, and consistent with the adaptive management framework, Federal Defendants have adjusted the spring spill and transportation operations to improve the rate of adult return for the spring-summer chinook and steelhead and are carrying out a multi-year research program to develop an effective balance of spill and transportation that in 2006 will employ a real “spread the risk” approach for summer operations. The specific modifications are discussed below in Section II.A.2 and 3.

1. The Biological Rationale For The 2006 Operations

As explained by Dr. John Williams, a preeminent salmon biologist², an important biological measure of success for any ESU is the rate of return of the adults to spawn. Second Declaration of Dr. John G. Williams (“Williams Decl.”), ¶ 8 (“[T]he only true measure of success for salmon and steelhead is the *return* of spawning adults.”). To track this rate of return under different conditions, scientists compare the returning adults to the number of juvenile salmon that leave the spawning and rearing habitat and begin to migrate (the life stage when salmon are referred to as “smolts”). *Id.* ¶ 13. The percentage of smolts to returning adults is referred to as the “Smolt-To-Adult Return” ratio or “SAR.” *Id.* Unlike what Plaintiffs appear to assume, the fact that “fish survive a particular river reach at a higher rate under a particular river operation does not necessarily mean they will return as adults at a higher rate.” *Id.* ¶ 12, 8;

² Dr. Williams’ background and experience are discussed below in Section III.A.1.c.

Declaration of Bruce Suzumoto³ (“Suzumoto Decl.”), ¶ 24. Indeed, natural mortality and conditions in the ocean affect the performance of salmonid stocks “more substantially” than any differences in hydropower system operation. *Id.* ¶ 15.

The FCRPS currently employs many techniques to aid juvenile migrants such as voluntary spill, transport, flow augmentation, programs to decrease predators, and cold water releases to moderate high river temperatures. *See Williams Decl.*, ¶ 19. Recently, the Corps has added removable spillway weirs at the Lower Granite and Ice Harbor dams that greatly improve the efficiency and survival for juvenile fish passage. *Id.* In developing a river management strategy among these options, it is not enough to blanketly assume, as Plaintiffs do, that spill and flow are good for fish and that therefore more spill and flow is necessarily better for fish under all circumstances. In fact, studies show that various salmon species respond differently to different strategies. *Id.* ¶ 20-25 (figure 4). For example, spring-summer Chinook that migrate through the hydropower system early in the spring have higher SARs than fish that are collected and transported, whereas the chinook that migrate later in the spring and that are transported have a higher Smolt-To-Adult Return ratios than fish that migrate through the hydropower system. *Id.* ¶ 24-26, 32. With respect to steelhead, fish collected and transported to below Bonneville Dam consistently have a higher SAR than fish that migrate through the hydrosystem. *Id.* ¶ 27.

Thus, any river management strategy, or combination of strategies, to be effective, must

³ Mr. Suzumoto is the Assistant Regional Administrator for the Hydro Division of NMFS. Suzumoto Decl., ¶ 1. He has a Masters Degree in Fisheries from Oregon State University. *Id.* Exhibit A.

accommodate the variation in life cycle among salmonid stocks.⁴ Williams Decl., ¶ 21 and 29.

The hydropower system should be operated to increase SARs where the adult return data support it, and should provide research opportunity where the existing SAR data are equivocal. *Id.* ¶ 10.

2. Changes To The Existing Spill Program

In the spring⁵, the Corps will use two approaches to the operation of the hydrosystem. *See* Second Declaration of Colonel Gregg Martin (“Martin Decl.”), ¶ 6. During the early part of the spring (until April 20), the Corps will strike a balance of approximately 48 and 52 percent between spill and transportation respectively. Suzumoto Decl., ¶ 9. At certain projects without transportation capability, spill will be increased or modified from that required by the 2004 Biological Opinion. Martin Decl., ¶ 8. The basis for the changes at each project is discussed in the Fourth Declaration of Rock Peters⁶ (“Peters Decl.”), ¶ 18-54.

After April 20, when the later migrating chinook pass through the hydrosystem, 92 to 95 percent of the fish will be transported. Suzumoto Decl., ¶ 9 (Table 1). As discussed below, this shift of emphasis to transportation is expected to increase SARs for the steelhead and later migrating chinook relative to the 2004 Biological Opinion and to Plaintiffs’ proposed interim action. Except at the projects with collection facilities, the spill levels will essentially remain the same during the late spring. Martin Decl., ¶ 6-7. A comparison of spill and transport during the

⁴ For example, some salmon and steelhead migrate to the ocean in the spring after living a year in freshwater, other stocks of salmon migrate out in the summer of the year they hatch from eggs. Williams Decl., ¶ 17. Thus, the size of the migrating fish differ and their susceptibility to predation and other risks differ. *Id.*

⁵ April 3 to June 20, 2006, on the Snake River and April 10 to June 30, 2006, on the Columbia River.

⁶ Mr. Peters’ background and experience are discussed below in Section III.A.1.c.

spring between the 2004 Biological Opinion, the 2006 Operations, and Plaintiffs' Motion is set out in more detail and in tabular form in Colonel Martin's Declaration.

During the summer^{7/}, the Snake River fall Chinook is the primary ESU migrating through the hydrosystem. Williams Decl., ¶ 34. The effect of spill and transportation on SARs for this ESU is not fully understood. *Id.* Accordingly, the agencies plan a balanced "spread the risk" operation as part of their continued multi-year study to evaluate the best management option for the Snake River fall Chinook. The experimental design transports some fish at the projects with collection facilities while others would pass the dams via spill and other juvenile passage routes. Unlike the Plaintiffs' proposal, which would markedly favor spill (only 33 percent of the fish would be transported), Suzumoto Decl., ¶ 11 (Table 2), the projected balance between spill and flow for the Corps' summer 2006 operations is close to 50/50. *Id.*, ¶ 11. Where under the 2004 Biological Opinion no spill occurred at the dams with collection facilities, the Corps will spill at these projects at a level designed to provide the 50/50 split and high survival in dam passage. Peters Decl., ¶ 14, 45, 49, 51, and 54. A comparison of spill and transport during the summer between the 2004 Biological Opinion, the 2006 Operations, and Plaintiffs' Motion is set out in more detail and in tabular form in Colonel Martin's Declaration.

As discussed below, the 2006 Operations are projected to substantially increase SARs for wild spring/summer Chinook and steelhead compared to the Plaintiffs' proposal which is likely to have a negative effect on SARs compared to the 2004 Biological Opinion. Suzumoto Decl., ¶ 5; Williams Decl. ¶ 11.

^{7/} June 21 through August 31 on the Snake River and July 1 through August 31 on the Columbia River.

3. Adjustments To The Existing Flow Augmentation

The Corps has not been able to operate three of the lower Snake River projects (Ice Harbor, Little Goose, and Lower Granite) at the minimum operating pool (“MOP”) (with up to one-foot fluctuations above MOP) in recent years because the channel has not been dredged. Henriksen Decl., ¶ 89. The dredging is scheduled to be done this winter. If it is complete the Corps will operate at MOP (with up to one-foot fluctuations above MOP) from April 3 until few migrants are present. Martin Decl., ¶ 14. The Corps will continue to operate Lower Granite at MOP (with up to one foot fluctuations above MOP) until enough cooling has occurred unless adjustments are required to meet navigation needs. *Id.* John Day will operate at 262.5 to 264 feet unless higher levels are needed to ensure that navigation needs are met. *Id.*

B. Upper Rule Curve

The purpose of the upper flood control rule curve (“URC”) is to ensure that the reservoirs are at a proper level to maintain flood control, *i.e.*, it is the *highest* level that water can be stored and have a reasonable certainty that flooding will be avoided. Third Declaration of Cynthia A. Henriksen⁸ (“Henriksen Decl.”), ¶ 37. Since 1995, a goal for storage project operations has been to operate storage projects at the URC by April 10 to have water available for augmenting flows for juvenile fish migration while still maintaining the minimum amount of space necessary to protect against flooding. *Id.* The upper rule curves for the Columbia Basin storage reservoirs were developed with the objective of providing flood protection for the Portland – Vancouver

⁸ Ms. Henriksen is the Chief of the Reservoir Control Center for the Corps’ Northwestern Division. Henriksen Decl., ¶ 1. She has a Bachelor of Science in Civil Engineering from Clemson and is a registered Professional Engineer in Oregon. *Id.* ¶ 2.

area, and local areas downstream of individual dams. *Id.* Operating above the upper rule curve poses risk of local and regional flooding. *Id.*

The URC is calculated using a two part procedure. *Id.* ¶ 41. The first part of the procedure is to obtain a water supply forecast; then the second part is to calculate the highest elevation allowable for flood control, *i.e.*, the upper rule curve, for each storage project. The water supply forecast is an estimate of expected inflow to a reservoir over a multiple month period. It is a function of anticipated precipitation and actual snowpack. *Id.* ¶ 42. Each forecast has error bounds as to the forecast's reliability. *Id.* ¶ 44. The uncertainty associated with the water supply forecast results in a risk that the actual flow into the reservoir will be different from that predicted. *Id.* ¶ 44-45. The operators cannot finalize the end-of-month upper rule curve until the National Weather Service prepares the final water supply forecast. *Id.* ¶ 48. In 2006, the National Weather Service will complete the final water supply forecasts calculations on January 9, February 7, March 7, and April 7. *Id.* ¶ 48, fn. 8.

With a water supply forecast, the Corps then calculates the highest elevation at which a storage project can be held and still provide adequate space to capture the anticipated runoff. *Id.* ¶ 47. Each project has a series of graphs that defines flood control storage space by month based on estimated runoff. *Id.* Starting in January and with each subsequent month, new flood control elevations based on the upper rule curves are calculated using the updated water supply forecasts. *Id.*

C. Columbia River Treaty

The Columbia River Treaty⁹ was the result of a lengthy, multi-year negotiation process between the U.S. and Canada. *See* Declaration of Richard M. Pendergrass (“Pendergrass Decl”), ¶ 4-10 and Exhibits 2 and 3 (describing the Treaty). The Columbia River Treaty provides for cooperative development and operation of Columbia River Basin water resources for the dual purposes of optimizing hydroelectric power production and providing flood control. *Id.* ¶ 5. One of the key provisions of the Treaty was a requirement that Canada construct and operate three storage dams – Mica, Duncan, and Arrow – to provide 15.5 million acre feet of storage in Canada. *Id.* ¶ 5. In finally agreeing to ratification of the Treaty in 1964, Canada insisted, among other things, that the Treaty include a Protocol and Annexes reflecting an acknowledgment of Canada’s great discretion to operate these Canadian storage facilities in whatever manner they choose, so long as Treaty requirements are met. *Id.* ¶ 4.

D. Legal Standard

Before granting a preliminary injunction, a district court must find that the moving party has demonstrated either (1) a likelihood of success on the merits¹⁰ and a possibility of irreparable injury, or (2) the existence of serious questions on the merits and a balance of hardships tipping in its favor.” *Fund for Animals v. Lujan*, 962 F.2d 1391, 1400 (9th Cir. 1992) (citation omitted). These interrelated tests are applied on a sliding scale, in which the required

⁹ *Treaty Between the United States of America and Canada Relating to Cooperative Development of the Water Resources of the Columbia River Basin*; signed at Washington, January 17, 1961; entered into force September 16, 1964, with related agreements effected by exchanges of notes at Washington, January 22, 1964, and at Ottawa, September 16, 1964. 15 UST 1555, TIAS No.5638, 542 UNTS 244. Bonneville Power Administration (“BPA”) and the Corps have been appointed through Executive Order to act as the U.S. Entity for implementation of the Treaty.

¹⁰ Federal Defendants do not address the issue of whether Plaintiffs have established a likelihood of success on the merits in this brief. Federal Defendants do not waive or concede that argument but simply refer the Court to their briefing on the issue last summer (Dkt. 947).

probability of success on the merits decreases as the degree of harm increases. *Westlands Water Dist. v. NRDC*, 43 F.3d 457, 459 (9th Cir. 1994). Mandatory preliminary injunctions - - injunctions that require a change in the *status quo* rather than those that preserve the *status quo* - - are disfavored and should be denied unless the facts and law clearly favor the moving party. E.g., *Stanley v. Univ. of S. Cal.*, 13 F.3d 1313, 1320 (9th Cir. 1994). Moreover, any injunctive relief must be narrowly tailored to the alleged harm and violation. *National Wildlife Federation v. National Marine Fisheries Service*, 422 F.3d at 800 (directing that this Court must ensure that any injunctive relief ordered must be “narrowly tailored” to remedy the specific, alleged ESA violation); *Lamb-Weston, Inc. v. McCain Foods, Ltd.*, 941 F.2d 970, 974 (9th Cir. 1991).

While the preliminary injunction standards are altered somewhat in ESA cases, nothing in the ESA nor *TVA v. Hill* absolves the district court of ensuring that the ordered injunctive relief is narrowly tailored. See *National Wildlife Federation v. National Marine Fisheries Service*, 422 F.3d at 800.

Finally, Fed. R. Civ. P. 52(a) requires a district court to make findings of fact and conclusions of law to support an injunctive order. See also Fed. R. Civ. P. 65(d).

III. ARGUMENT

A. The Court Should Not Issue An Injunction Because The Corps’ and BoR’s 2006 Operations Reflect The Best Available Science And Are Likely To Benefit Listed Salmon And Steelhead.

1. Spring Spill And Transportation Operations Optimize The Smolt-To-Adult Return Ratios For Chinook And Steelhead Compared To Plaintiffs’ Proposed Interim Operations.

As discussed above, adult returns are the most important measure of success for any ESU. Williams Decl., ¶ 8. With this as a yardstick, the best available science indicates that, in

order to maximize returns for both spring-summer Chinook and steelhead, the dams should be operated to take into account SAR seasonal variability, *i.e.*, a combination of spill and transportation early in the spring and then maximizing transportation later. As explained previously, the 2006 spill operations do just that. Under Plaintiffs' proposal, however, spill would occur throughout the spring, which in turn increases the amount of in-river migration to the detriment of the potential for adult returns of steelhead and late migrating chinook. Thus, the 2006 Operations are likely to substantially increase SARs for Chinook and steelhead compared to Plaintiffs' proposal that is likely to have a negative effect on those SARs. Williams Decl., ¶ 11; Suzumoto Decl., ¶ 5.

a. The Corps' Dual Strategy In The Spring Will Provide Higher Returns For Salmon And Steelhead Than Plaintiffs' Proposed Operations.

As discussed above, Chinook that migrate through the hydropower system early in the spring have higher SARs than fish that are collected and transported, whereas Chinook that migrate later in the spring and are transported have a higher SAR than the fish that are allowed simply to migrate through the hydropower system. Williams Decl., ¶ 11, 24. The 2006 spring operations are designed to accommodate this seasonal variability. Steelhead transported to below Bonneville Dam throughout the season have higher SARs than fish that migrate through the hydrosystem. *Id.* ¶ 27.

Early in the spring, the Corps will use a balance of spill and transportation to accommodate the early migrating Chinook and transportation to accommodate the early-migrating steelhead. The percentage of fish transported is estimated to be 52-53 percent. Suzumoto Decl., ¶ 9. Beginning about the third week in April, the Chinook collected and

transported to below Bonneville Dam have a higher SAR than fish that migrate in-river.

Williams Decl., ¶ 30 (figure 7). The best available science shows that the maximum **overall** adult return for chinook and steelhead occurs when maximum transportation begins approximately in the third week of April. *Id.* Dr. Williams, thus, concludes that this “dual strategy in the spring will provide the most biological benefit – namely higher returns – for salmon and steelhead.” *Id.* ¶ 11; *id.* ¶ 31 (“[T]his operation would produce the highest adult returns of wild and hatchery Chinook salmon, while limiting a decrease in the maximum possible steelhead returns to no more than 5%”). Indeed, by beginning maximum transportation on April 20, NMFS Science Center’s analysis indicates a likely **increase** compared to the 2004 Biological Opinion of 10.8 percent in the potential return of hatchery Chinook, 15.8 percent for wild Chinook, 24.7 percent for wild steelhead and 15.5 percent for hatchery steelhead. Suzumoto Decl., ¶ 20 (Table 3).^{11/}

Plaintiffs advocate for increased spill throughout the spring, which means more juveniles will pass by the dam through the spillway in the later spring thereby avoiding the transportation facilities.^{12/} Plaintiffs’ approach fails to acknowledge that transportation has a 98 percent

^{11/} Mr. Heinith argues that recent studies of SARs for spring and summer chinook indicate that transportation at levels of 70 to 85 percent is not supported by the data except in 2001, a year with extremely poor in-river conditions. Heinith Decl., ¶ 25. Dr. Williams concludes that this argument is wrong because it relies on “average SARs over nine migration years.” Williams Decl., ¶ 32. Such an analysis obscures the temporal variability of SARs within a season. *Id.*

^{12/} It is important to recognize the role spill plays in regulating the percent of juveniles that migrate in-river as compared to transportation. As spill increases, juveniles are drawn to and over the spillway. In contrast, as spill decreases, juveniles are not drawn to the spillway and therefore encounter the juvenile bypass screens, which encourage juveniles to enter the by-pass facilities. Once in these facilities, operation managers may either return those juveniles back to the river or divert them into transport vehicles such as a barge with circulating river water. Put simply, as spill increases, the percentage of in-river migration goes up and the percentage of transported juveniles goes down.

survival rate from Lower Granite Dam to below Bonneville Dam. Williams Decl., Exhibit C at 44. Most importantly, it ignores the evidence that the rate of adult returns for late-migrating spring chinook and steelhead benefit from transportation. Williams Decl., ¶ 29-31. By ignoring this benefit, Plaintiffs’ proposed spring spill operations are likely to result in a **decrease** compared to the 2004 Biological Opinion in the potential return of hatchery Chinook of approximately -0.8 percent, wild Chinook of -2.2 percent, wild steelhead of -1.9 percent, and hatchery steelhead of -1.1 percent.¹³⁷ Suzumoto Decl., ¶ 20 Table 3). As Dr. Williams opines, “a spill operation, as proposed by Plaintiffs in comparison to the [Corps] proposal to begin full transport after April 20th, would result in approximately 64,100 fewer fish returning as adults.” Williams Decl., ¶ 29.

Thus, the Corps’ spring spill in 2006 should be effective in increasing the adult returns over the next year. In contrast, Plaintiffs’ proposal if implemented is not likely to be effective in increasing SARs, and, indeed, may result in lower adult returns.

b. The Corps’ Proposed Summer Spill Operation Will “Spread The Risk” By Transporting Approximately 50 Percent Of The Snake River Fall Chinook.

The Snake River fall Chinook migrate during summer operations. SAR studies for summer migrating Snake River fall Chinook are based on very little data. Thus, analyses of the

¹³⁷ Plaintiffs’ proposed operation is likely to have other detrimental effects. For example, as explained in the Peters Declaration, Plaintiffs’ proposed operation at Bonneville Dam would actually increase yearling Chinook and steelhead mortality. *See* Peters Decl. at ¶ 7. Similarly, Plaintiffs’ proposal for daytime spill at John Day Dam will increase wild and hatchery steelhead mortality and provide no additional benefit for yearling Chinook. *Id.* at ¶ 7, 24. Finally, Plaintiffs’ proposed operation would interfere with a number of studies, which, if allowed to continue, will provide critical information for future decisionmaking. *Id.* at ¶ 7, 26-27 (increasing spill at McNary Dam would interfere with an ongoing two year study).

relative benefits of transportation and spill are incomplete and inconclusive. Williams Decl., ¶ 34; Peters Decl., ¶ 14. Accordingly, the Corps is designing a multi-year study to understand how to best improve adult returns. Williams Decl., ¶ 7 (“Conducting a long-term study to understand how best to increase adult returns of [Snake River fall Chinook] appear[s] critical to resolving uncertainties.”). For 2006, the study will have the benefit of a balanced “spread the risk” migration. Suzumoto Decl., ¶ 5. Plaintiffs claim that their spill levels “provide a balance between migration in the river and transport.”¹⁴ Pls’ Mem. at 7. Yet, Plaintiffs’ spill strategy actually would allow transportation of only 33 percent of the fish. Suzumoto Decl., ¶ 11-13.

c. The Testimony of Federal Defendants’ Experts Compels Rejection Of Plaintiffs’ Proposed Spring Operations.

After reviewing the 2006 Operations and Plaintiffs’ proposed spring operations and the declarations relied on by Plaintiffs, Dr. John Williams concludes:

[P]laintiffs’ proposed operation during the spring period would be more likely to harm the listed salmonid ESUs than the river operation proposed by the [Corps]. The COE proposal will likely return more adult Snake River Spring Summer Chinook and Snake River Steelhead than the Plaintiffs’ proposal. For Snake River Fall Chinook, which migrate later in the summer, the plaintiffs’ proposed operation presumes that it will return the highest number of adult returns, but neither positive or negative empirical evidence exists to support this supposition. Conducting a long-term study to understand how best to increase adult returns of this stocks appear critical to resolving uncertainties.

Williams Decl., ¶ 7. Mr. Rock Peters reviewed this same information and provides the following opinion:

Based on my review of this information and literature, it is my professional

¹⁴ Dr. Williams points out that for “Snake River fall Chinook . . . the plaintiffs’ proposed operation presumes that it will return the highest number of adult returns, but neither positive or negative empirical evidence exists to support this supposition.” Williams Decl., ¶ 7.

opinion that: (1) the Plaintiffs' proposed action . . . will not provide the best operations for passage of juvenile and adult salmon and steelhead as compared to the planned operation set forth in the Declaration of Col. Martin; (2) the adaptive management process used by the Corps for adjusting spill volumes and patterns at its mainstem Columbia and Snake run-of-river projects reflects and implements the best available science and will lead to significantly more adult returns than Plaintiffs' proposed action; and (3) the Corps' planned summer spill operation is expected to better "spread-the-risk" by transporting approximately 50 percent of the fish with approximately 50 percent migrating in-river.

Peters Decl., ¶ 6. The Court should afford substantial weight to the testimony of these highly trained and qualified scientists. Dr. Williams is a preeminent salmon biologist. *See* Williams Decl., Exhibit A. He has a Bachelor of Science in Fisheries, a Master of Science in Invertebrate Biology and Fisheries Science, and a Ph.D. in Invertebrate Marine Ecology, Biology and Aquaculture, all from the University of Washington. He has conducted research on salmon biology since 1980, first as a Fish Biologist for the Corps and NOAA and later as a Supervisory Fisheries Research Biologist at NOAA's Science Research Center. In addition, since 1987 he has been an Affiliate Associate Professor at the University of Washington's School of Aquatics and Fisheries Science. He has published 25 peer-reviewed publications on salmon as well as numerous technical reports. Dr. Williams has twice won the United States Department of Commerce Bronze Medal Award for his research on salmon biology.

Mr. Rock Peters also is an experienced salmon biologist. Peters Decl., ¶ 1-4. He works for the Corps as a Fishery Biologist. *Id.* ¶ 1. He has worked in this capacity in several different positions with the Corps since 1982. *Id.* ¶ 2-3. His current duties include overseeing and providing strategic guidance directed at improving dam and reservoir survival of fish. *Id.* In each position, his responsibilities have directly involved the biology of salmonids. Mr. Peters

earned a Bachelor of Science in Wildlife Science from Oregon State University in 1977.¹⁵ *Id.* ¶ 4.

The scientific opinions of these qualified, experienced salmon biologists lead to only one conclusion. Plaintiffs' request for additional spill in 2006 must be rejected. The Corps' spill operations for 2006 are more likely to increase the return of adult spring-summer Chinook and steelhead and to begin to develop a long term strategy for managing the river for fall Chinook than Plaintiffs' proposed operations. Accordingly, Plaintiffs have not shown that their proposed interim operations are necessary to address the alleged violations of the ESA.

B. The Data Regarding The Court-Ordered 2005 Summer Spill Shed No Light On The Proper Balance Between Spill And Transportation For Summer Spill.

Plaintiffs argue that preliminary data regarding the effects of last summer's court-ordered spill indicate "a statistically significant difference in late season survival (with spill) and early season survival (prior to spill)." Pls' Mem. at 9 (citing Fourth Lorz Decl. at ¶ 28).¹⁶ In paragraph 28 of his Declaration, Mr. Lorz references a report compiled by the Fish Passage

¹⁵ By contrast, the Treaty Tribes' proffered expert, upon who Plaintiffs rely to provide the biological basis of their spill arguments, is a hydraulic engineer, not a biologist. First Lorz Declaration (Dkt. 972). He has worked at the Columbia River Inter-Tribal Fish Commission since he received a masters in engineering from Oregon State University in 1996. *Id.* He also has a Bachelor of Science in Engineering from Oregon State University. First Lorz Decl. at 2. He identifies his job responsibilities as being strictly related to engineering, not biology. *Id.* Federal Defendants have joined the State of Montana in seeking the deposition of the Plaintiffs' and Treaty Tribes' experts to explore whether their testimony is even admissible. Federal Defendants do not waive their right to subsequently bring a *Daubert* challenge to the testimony of either Mr. Lorz or Mr. Heinith, as appropriate.

¹⁶ The statistical confidence for the data is significant only at the 90 percent confidence level (a "p level" of 0.1) rather than the 95 percent confidence level typically used to ensure the statistical significance of data. Saks, Faigman, Kaye, and Sanders, *Reference Manual On Scientific Evidence, Second*, Federal Judicial Center, 2004 at 248 ("In practice, statistical analysts often use certain preset significance levels - typically .05 or .01.").

Center (“FPC”), and opines that this report “showed a statistically significant difference in late season survival.” Fourth Lorz Decl. at ¶ 28. Based on this report, Mr. Lorz concludes that “FPC’s analyses and response are sound” and further extrapolates that the “summer spill in 2005 provided survival improvements to in-river migrating juvenile fall Chinook.” *Id.* Regardless of the statistical significance, the FPC report says nothing about the relative value of spill to transportation or whether the 2005 spill had any effect on SARs. Moreover, Mr. Lorz’ opinion regarding the FPC report does not withstand scrutiny.

First, the FPC report does not support Mr. Lorz’ broad conclusion that the 2005 summer spill increased juvenile survival. The FPC report examined survival estimates only from the Lower Granite (“LWG”) tailrace to the McNary (“MCN”) tailrace reach in the years 2001-2005 and does not include estimated survivals through the Lower Granite reservoir and dam or the lower Columbia River. Lorz Decl., ¶ 28 (Attachment 8 at 1). In other words, the FPC report examined only a very limited stretch of the river, for only a very brief period of time. Mr. Lorz provides no explanation of how he extrapolates from this limited data set to his broad conclusion regarding total in-river survival.

Second, the FPC report segregated the Snake River fall Chinook migration into two groups; a pre-spill (from May 20 until June 12) and a post-spill (June 17 to July 15) passage group. Suzumoto Decl., ¶ 25. The majority of the fall Chinook run had already passed through the Snake River dams prior to the court-ordered spill. *Id.* ¶ 26. The apparently arbitrary choice of these dates for the comparison provides no meaningful basis for comparison with the earlier data. *Id.* In fact, the separation of juvenile Snake River fall Chinook into the pre- and post-spill groups, based on these particular dates, and comparing survivals and travel times between the

years of 2001-2005 does not take into account the different historical run timing that has occurred or any differences in actual spill levels in those years. *Id.* ¶ 25.

Third, Mr. Lorz failed to disclose that the FPC limited its analysis to a comparison of the years going back only to 2001 even though a more extensive data set is available, *i.e.*, empirical reach survival data from LWG to MCN exists from 1998. *Id.* ¶ 23 A longer study period may have shown different results, as LWG to MCN reach survivals of Snake River fall Chinook in the 1998-2000 period were generally higher than the FPC-reported survivals during 2001 to 2005 period, even with no voluntary fish spill occurring at the four collector projects after about June 20. *Id.* Moreover, it is uncertain what survival data were used by the FPC for 2002, as empirical reach survival estimates were unavailable that year due to poor fish condition. *Id.*

Finally, the FPC report is silent as to the more meaningful issue of adult returns. Even if we assume that there is a scientifically sound study that demonstrates increased survival through a particular stretch of river, such a study is meaningless in the terms of adult returns. *See supra* at 6. It is inappropriate to base salmon and steelhead management as well as operational decisions on the FPC report due to the extremely limited parameters of the study and analysis. Suzumoto Decl., ¶ 27.

Thus, whether statistically significant or not, the FPC report relied on by Mr. Lorz does not support the imposition of the additional spill sought by Plaintiffs.

C. Plaintiffs' Request For Additional Flow Augmentation Should Be Rejected.

1. The Court Should Not Require The FCRPS And Canadian Reservoirs To Be Operated At Their Upper Rule Curves.

Plaintiffs request the Court to order that all FCRPS storage reservoirs^{17/} be maintained at their URC on a bi-weekly basis from February 1, 2006, through April 30, 2006. Pls' Motion at 2. Further, they want the Court to order the government, through the Columbia River Treaty forum, to ensure that certain Canadian reservoirs (Duncan, Arrow, and Mica) also are maintained at their upper flood control rule curves on a bi-weekly basis. *Id.* Plaintiffs' objective in seeking these modifications is to allow more water to be available for river flows in spring and summer. Pls' Mem. at 10. They seek to have the agencies use this water to create "a higher flow pulse in the late spring and higher flows throughout the migration season thereafter." *Id.* According to Plaintiffs, such flows have "extensive scientific support." *Id.* (citing Heinith Decl. ¶ 5).^{18/} They claim that the Court must abolish the agencies' operational flexibility with respect to the operations of the reservoirs between February and May because in the winter and spring of 2004-2005, the agencies utilized that flexibility "for power production" leaving substantially less water available for use for salmon flows. *Id.* at 11 (citing Heinith Decl, ¶ 7).

The Court should reject Plaintiffs' requested relief regarding the URC. First, Plaintiffs fail to establish that the requested relief actually will enhance in-river survival. Second, the URC cannot be treated as an enforceable standard because meeting such a standard is largely beyond the agencies' control. Third, Plaintiffs fail to establish that it is feasible to obtain additional storage in Canada. Indeed, absent the Canadian storage, it is dubious that the requested relief will actually result in the flows Plaintiffs seek. Finally Plaintiffs fail to account

^{17/} The Corps operates the storage reservoirs at Dworshak Dam in Idaho and the Libby Dam in Montana. The BoR operates the storage reservoirs at the Grand Coulee facility in Washington and the Hungry Horse facility in Montana.

^{18/} Compare Heinith Decl., ¶ 5 ("[a] number of aquatic scientists").

for the consequences of the requested relief.

a. The paradigm that in-river smolt survival is proportionally enhanced by any added water is not supportable.

Plaintiffs' governing premise is that the flow measures they seek to have the Court implement "are likely to improve juvenile salmon survival in both spring and summer." Pls' Mem. at 13-14 (citing Heinith Decl. ¶ 17-21). Plaintiffs, however, fail to establish that the additional flow they seek will enhance the in-river survival of ESUs. Indeed, both Plaintiffs and Mr. Heinith ignore that the best available science strongly calls in to question whether there is any direct relationship between flow and survival. Indeed, in 2003, an independent panel of scientists concluded that:

The prevailing flow-augmentation paradigm, which asserts that in-river smolt survival will be proportionally enhanced by any amount of added water, is no longer supportable. It does not agree with information now available.

ISAB for the Northwest Power Planning Council, Review of Flow Augmentation: Update and Clarification, February 10, 2003, ("ISAB Report") at 3. The ISAB explained that historically the "region has relied on the analyses by the Fish Passage Center ("FPC") for much of its understanding of the effects of flow (river discharge) on the migration rates and survival of downstream-migrating smolts." *Id.* at 33. The ISAB, however, reviewed these analyses and concluded that the FPC's "basic model and methods of presentation are now inadequate to make confident predictions for management, and other interpretations of the accumulated data are needed." *Id.* Nonetheless, Plaintiffs and Mr. Heinith apparently still cling to the outdated view of the FPC. Peters Decl., ¶ 63-66; Ocker Declaration (Dkt. 935), ¶ 11 ("With the recent findings of the large adult contribution from migrants exhibiting the reservoir life history . . . the

strategy of using flow augmentation to speed migration should be reassessed.”) (quoting ISAB, “ISAB Findings from the Reservoir Operations/Flow Survival Symposium”, Dec. 10, 2004, at 2); *see also* Williams Decl., ¶ 20 (“[T]he research results are currently inconclusive concerning the benefits of increasing flows as a strategy for increasing juvenile salmonid survival within the hydropower system. For spring migrating juvenile yearling salmonids the relationship between flow and their survival within a migratory season appears weak and inconsistent.”) (citing Williams *et al.* 2005).

In short, in light of the recent science, the flow-survival relationship posited by Mr. Heinith simply is not “adequately demonstrated.” Peters Decl., ¶ 66.

b. The Upper Rule Curve should not be implemented as an enforceable standard.

(1) The agencies do not have complete control over whether the URC can be attained.

Plaintiffs also ask the Court to convert the URC from an operating guide into an enforceable standard and to apply that standard on a bi-weekly basis. Plaintiffs’ request, however, evinces their inability to grasp the operational constraints of the hydropower system.

The Corps’ and BoR’s operating strategy is to have the reservoirs as full as possible on April 10th to have the most water available for flow augmentation while not exceeding the level required for flood control. Henriksen Decl. ¶ 66; Declaration of D. James Fodrea (“Fodrea Decl.”), ¶ 18. Because of the nature of natural runoff, there will be years that the storage reservoirs will not refill to the URC elevations at the “end of the month” or on April 10 due to low runoff conditions or deteriorating water supply forecasts. Henriksen Decl. ¶ 67; Fodrea Decl. ¶ 19-21. In a given month, for example February, the water forecast will not be available

until well after the beginning of the month (February 8 in 2006). *See* Henriksen Decl. ¶ 55.

Thus, the operations must be based on the previous month's forecast. *Id.* ¶ 55-56. If the January forecast predicted a large spring snowmelt, the URC would be lower and the reservoir would release water for the first 10 to 15 days of February to achieve the upper rule curve. If, however, when the February forecast was available, it predicted low spring snow melt, the reservoir would have to switch to minimal flows to try to reach the higher URC elevation.¹⁹ Depending on how much actual water flowed into the reservoir during the rest of February, the reservoir may not be able to achieve the end of the month URC even if it released only minimal flows.²⁰ *See id.* ¶ 58. If the water supply forecast continued to deteriorate, the reservoir may not achieve the April 10 target even releasing only minimal flows. Many other considerations go into whether a storage project can achieve its URC target, including providing flows for other listed and non-listed species, power emergencies, project emergencies, and other unforeseen circumstances.

Henriksen Decl., ¶ 39. Thus, the URC cannot be treated as an enforceable standard because meeting such a standard whether on a bi-weekly or monthly basis, or on any other date, would require the agencies essentially to be able to control the weather and other uncontrollable factors.²¹

¹⁹ When actual flows into the system do not match the monthly forecasts, operating agencies may have to "dramatically shift course." Fodrea Decl., ¶ 12.

²⁰ Minimum flow is the flow necessary to maintain stream flows below the project that are protective of resident fish species. Henriksen Decl., ¶ 66.

²¹ Plaintiffs have not demonstrated that even if the reservoirs were maintained at the URC that the "a more natural hydrograph with peak flows will occur in the late spring and early summer." Under the conditions Plaintiffs used to model that hydrograph, an average peak flow of 345,000 cfs is achieved in only half of the water conditions modeled. Second Declaration of Roger P. Schiewe ("Schiewe Decl."), ¶ 16. Plaintiffs obscure that problem by assuming that 2006 will be an "average water year"; an assumption which they have no basis for concluding will occur. *Id.* Indeed, the assumptions used in the modeling that Mr. Heinith relies on bear no meaningful relationship to how the hydrosystem operates. Henriksen

(2) Plaintiffs' argument that the storage reservoirs did not attain their URC in 2004-2005 because the agencies used their operational flexibility to make power drafts is wrong.

The premise of Plaintiffs' argument that the Court should require compliance with the URC on a bi-weekly basis because the Corps and BoR have used their operational flexibility in 2004 and 2005 to make power drafts also is unsupported by the facts. Henriksen Decl., ¶ 65; Fodrea Decl., ¶ 20. The Corps' intent is to achieve URC elevations from January through April to meet the April 10 objective. Henriksen Decl., ¶ 66. To implement this strategy, the Corps generally releases either minimum project flows when there is a low water supply forecast or additional water to achieve the URC when the water supply forecast is high. *Id.* The Corps evaluated the historical operation of Libby and Dworshak since 1995. *Id.* For each project, the end-of-month elevation was compared to the calculated URC.

Since 1995, with some limited exceptions discussed in the Henriksen Declaration, Libby and Dworshak have released either only minimum flows or more than minimum flows to meet the end-of-month URC elevation. Henriksen Decl., ¶ 68. There were several years when Libby did not fill to the targeted end-of-the month URC, but this was because the water supply diminished during the period. *Id.* ¶ 70. In 2004, Libby did not attain the April URC. Henriksen Decl., ¶ 72. However, that failure was not due to the Corps use of its operational flexibility to take a power draft as Plaintiffs allege, but because of a diminished water supply. *Id.* ¶ 73.

Similarly, Dworshak was operated to achieve the April 10 URC in every year since 1995. An exception was in 2001, an unusually low water year, where some additional flow was

Decl., ¶ 78-79.

released for a power emergency and the April 10 URC was not attained. *Id.* ¶ 75. In 2005, a year of concern to Plaintiffs, Dworshak met an end-of-month flood control elevation in January; however, because the diminishing water supply forecast resulted in the calculated URC elevations in the next succeeding months were at higher elevations, the reservoir was not able to refill to the April URC even though the dam released only minimum flows through February and March. Henriksen Decl., ¶ 76.

BoR operates to maintain a 75 percent (Hungry Horse) to 85 percent (Grand Coulee) likelihood of reaching the April 10 URC. Fodrea Decl., ¶ 19. Operating blow URC is often necessary to maintain flows for chum salmon below Bonneville Dam, mid-Columbia fall Chinook near Vernita Bar and resident bull trout below Hungry Horse. *Id.* When BoR does not reach URC at Hungry Horse, it typically is because of the carry-over-effects from the summer drafts from the previous year for which in-flows cannot compensate and the need to provide minimum project outflows for ESA-listed bull trout. *Id.* At Grand Coulee, BoR is below the URC most often because of project maintenance, forecast changes and flows to ensure that the redds of ESA-listed Chum salmon and Hanford-Reach fall Chinook are not exposed. *Id.* The reasons that Hungry Horse and Grand Coulee did not attain their URC were not driven by power drafting. *Id.* ¶ 20-22. For example, while the 2004 winter operation of Grand Coulee did include some power drafts in January, as Mr. Fodrea fully explains in his declaration, the reason Grand Coulee did not attain its URC in April 2004 was due primarily to changes in the forecast. *Id.* ¶ 20; *see id.* ¶ 21 (Hungry Horse releases for bull trout and poor water supply), and ¶ 22 (drum gate maintenance 2005).

In short, the premise of Plaintiffs' argument - - that the Corps and BoR do not meet their

URCs as a result of power drafts - - is simply not supported by the facts. Ms. Henriksen and Mr. Fodrea have made quite clear that the agencies routinely endeavor to attain the URCs and that their failure to attain the URC in the winters of 2004 and 2005 occurred due to events beyond their control. Given the many uncertainties attendant to the operation of the hydrosystem, that the Corps and BoR do not meet the URC from time-to-time is hardly surprising and clearly does not justify the order that Plaintiffs seek.

(3) Holding the reservoirs at the URC will result in consequences for other species and resources.

Finally, Plaintiffs fail to recognize the consequences of requiring the Corps and BoR to attain the URC on a bi-weekly basis from February 1 through April 30. For example, because the reservoir essentially must remain at the URC to ensure compliance, if the forecast is in error and the in-flows are greater than forecasted, the storage reservoirs may reach or exceed full pool increasing the risk of flooding or requiring spills to avoid flooding problems that may also result in supersaturation above the gas cap. Henriksen Decl., ¶ 57. Moreover, an order to achieve the URC on a bi-weekly basis may limit the agencies' ability to make necessary releases to maintain minimum flows, including flows necessary to prevent dewatering of eggs and spawning nests for endangered chum salmon below Bonneville Dam and important non-listed fall Chinook in the Hanford-Reach or to protect other species such as the listed bull trout, Kootenai white sturgeon and the burbot.^{22/} Fodrea Decl., ¶ 27-30; Schiewe Decl., ¶ 17-20; Henriksen Decl., ¶ 38.

^{22/} The State of Montana has previously proposed changes to the operations at Libby and Hungry Horse to ameliorate damaging impacts on resident species of reservoir drawdown such as Plaintiffs propose here through implementation of the Northwest Power and Conservation Council's 2003 Mainstem Amendments. Federal Defendants support the State of Montana's efforts to reduce the negative impacts on ESA-listed resident species with minimal impacts on salmon and steelhead.

Requiring bi-monthly attainment of the URC would interfere with these required and other vital functions. Henriksen Decl., ¶ 55-59.

(4) Doing away with the operational flexibility is unnecessary to ensure that additional water is available for flow augmentation in the late spring and summer.

The purpose of the URC is to ensure that the reservoirs are at a proper level to maintain flood control, *i.e.*, the *highest* level that water can be stored and have a reasonable certainty that flooding can be avoided. Henriksen Decl., ¶ 37. To have the most water available for salmon and steelhead flows in the late spring and summer, while preserving the flood control objective, the agencies target actually meeting the URC on April 10 and refill by June 30. *Id.* Doing away with the operational flexibility to provide flows for other listed and non-listed species, power emergencies, project emergencies, and other unforeseen circumstances, and exposing the public to a greater risk of flooding from February through April is unnecessary to ensure that water is available for flow augmentation in the late spring and summer. The Corps and BoR are already implementing a strategy to ensure that, to the extent that it is within their control, the maximum water is available for flow augmentation.

c. It Is Not Lawful, Realistic, Or Appropriate To Require Federal Defendants To Require Canada To Operate Its Storage Reservoirs At Their Upper Rule Curves.

Plaintiffs also ask the Court to order Defendants to negotiate and reach agreement under an international treaty between the United States and Canada, that would require Canada to maintain its Duncan, Arrow, and Mica reservoirs at their URCs on a bi-weekly basis from February 1, 2006, through April 20, 2006. Pls' Motion at 2. Plaintiffs assert, supported only by the opinion of Mr. Heinith, that retaining that water is "feasible" and should "enjoy the support

of both Canadian and U.S. fish managers.” Pls’ Mem. at 12 (citing Heinith Decl., ¶ 11-12).^{23/}

Plaintiffs’ requested relief with respect to the Canadian reservoirs must be rejected. First, the request violates the Constitutional separation of powers doctrine. Second, even if it were within this Court’s authority to consider Plaintiffs’ requested relief regarding the treaty, it is not realistic to expect that such a change can be negotiated or that Canada would be able to have the reservoirs at their URCs by February 1. Finally, even if the changes could be negotiated and implemented, they should not be ordered because they would have significant negative impacts on Chum salmon and other species.

First, Plaintiffs’ request that the Court order Executive branch agencies to initiate and pursue discussions with their “Canadian counterparts”^{24/} to obtain more water violates the Constitutional separation of powers doctrine, and thus the Court is without authority to order such relief. The Constitution commits the power to make Treaties and to conduct foreign affairs to the President. U.S. Const. Art. II, § 2, cl.2; Art. II, § 3. Thus, “the President alone has the power to speak or listen as a representative of the nation. He makes treaties with the advice and consent of the Senate; but he alone negotiates. Into the field of negotiation the Senate cannot intrude; and Congress itself is powerless to invade it.” *United States v. Curtiss-Wright Export Corp.*, 299 U.S. 304, 319 (1936). Thus, the Ninth Circuit has made clear that the courts are without power to enforce or compel the Executive branch to initiate discussions with foreign nations. *Earth Island Institute v. Christopher*, 6 F.3d 648, 652 (9th Cir. 1993) (finding statute that

^{23/} Neither Plaintiffs nor Mr. Heinith explain the basis for this Court to conclude that Mr. Heinith is an expert on either the Columbia River Treaty or whether an agreement could be negotiated that would “ensure” that Canada would operate the dams at the upper flood control rule curves.

^{24/} Presumably, Plaintiffs are referring to British Columbia Hydro (“B.C. Hydro”), which is the entity designated by the government of Canada for implementing the Columbia River Treaty.

directed the Executive branch to initiate discussions with foreign nations over the protection of sea turtles “*violates the separation of powers, and this court cannot enforce it.*”) (emphasis added).^{25/} The same principles preclude the relief Plaintiffs seek here. Similar to *Earth Island*, Plaintiffs seek an order from this Court directing Executive branch agencies to initiate discussions with a foreign nation. And for the same reasons as set forth in *Earth Island*, this request is inappropriate and must be denied.

Second, even if it were within this Court’s authority to consider Plaintiffs’ requested relief, the ultimate “benefit” Plaintiffs are seeking is wholly within the control and discretion of a non-party sovereign nation, Canada. Canada has no obligation to provide what Plaintiffs seek. Contrary to what Plaintiffs and Mr. Heinith argue, it is not realistic to expect that Federal Defendants can negotiate a modification of the Detailed Operating Plans (“DOP”).

Mr. Richard Pendergrass, who has worked for the BPA in matters related to the Columbia River Treaty since 1989 and has served as one of two appointed Chairmen for the United States Section of the Columbia River Treaty Operating Committee since 1998^{26/}, concludes that Plaintiffs’ requested change in the way Canada operates its reservoirs is contrary to the Treaty and simply is not feasible. Pendergrass Decl., ¶ 3. Mr. Pendergrass offers several reasons to support his conclusion. Mr. Pendergrass states that operating treaty reservoirs at their upper rule curves would be contrary to the Treaty because it would run directly contrary to the

^{25/} While *Earth Island* involved a directive to the Executive branch by Congress, not the courts, this is a distinction without a difference. The holding of *Earth Island* is clear that the authority to initiate discussions with foreign nations rests solely with the Executive branch and in fact, expressly found that the judiciary was without authority to enforce the statute because of the separation of powers doctrine. Thus, an order of the nature sought by Plaintiffs directly from the judiciary would be no less of a separation of powers violation than the directive from Congress at issue in *Earth Island*.

^{26/} Pendergrass Decl., ¶ 2.

express dual purposes of the Treaty - - optimizing power and providing flood control - - and would directly conflict with the main objective of the Treaty to reshape river flows for these purposes. *Id.* ¶ 3, 5-8, and 12-13. In addition, he states that it would not be possible to negotiate a supplemental operating agreement to the DOP that would fulfill Plaintiffs' request. *Id.* ¶ 3 and 22. Based on his extensive experience in negotiations regarding the Treaty a request of this size would conflict with Canada's power and non-power needs, and thus it is extremely unlikely, if not impossible, that Canadian agreement to the operational modifications can be obtained. *Id.* ¶ 15-21, Exhibit 9. Moreover, he states that Canada would not accept the proposed changes because the changes would have significant negative impacts to Canadian non-power interests, including impacts to other fish species. *Id.* ¶ 18-19. Finally, even if Canada might agree to such operational restrictions, Mr. Pendergrass explains that it would be impossible for the Canadian facilities to be at the upper rule curve by February 1, 2006. *Id.* ¶ 14.

Regardless, even if a supplemental agreement implementing Plaintiffs' proposal could be negotiated, the requested relief would not be appropriate. As Mr. Pendergrass points out, the requested operational changes would have significant negative impact on Chum salmon and other ESUs in the United States. *Id.* ¶ 21.

Thus, ordering relief which is highly speculative and not likely to address perceived harm in any event is not "narrowly tailored" and should be rejected.

2. Plaintiffs' Request For 630,000 Acre-Feet Of Water For Additional Summer Flow Augmentation Is Not Feasible And Will Negatively Impact Natural And Cultural Resources.

Plaintiffs ask the court to order the Corps and BoR to provide up to 500,000 acre-feet of water from non-Treaty storage in Canada or Lake Roosevelt and 130,000 acre-feet from either

non-Treaty storage or Banks Lake for summer flow augmentation. Pls' Motion at 2. According to Plaintiffs, the bulk of this water "should be available through an agreement for one-time use of non-treaty storage in Canada (which is currently empty and not being used)." Pls' Mem. at 12 (citing Heinith Decl. ¶ 13). Mr. Heinith acknowledges that the Non-Treaty Storage Agreement has expired. Heinith Decl. ¶ 13. He assumes, however, without any explanation, that "defendants have the ability to work with their Canadian counterparts to arrange for storage and release" of the water. *Id.*

Plaintiffs' request for 630,000 acre-feet of water for summer flow augmentation should be rejected. First, like the request to have the Canadian facilities run at their URCs, this request runs afoul of the separation of powers doctrines, and for this reason alone must be rejected. *See supra* at 30. Moreover, without demonstrating a specific need for the water, Plaintiffs' request cannot be narrowly tailored to address the alleged ESA violations. Further, the water cannot be obtained from non-Treaty storage because no non-Treaty storage agreement exists, nor can one be negotiated in the time available to allow for such releases. Further, releases from Lake Roosevelt or Banks Lake will have profound impacts on these water resources and the nearby cultural resources.

Mr. Pendergrass fully explains the concept of, and limitations inherent to, non-Treaty storage and the Non-Treaty Storage Agreement. Pendergrass Decl., ¶ 23-31. He describes how the United States has **no** rights under the Treaty to **any part** of this storage. *Id.* ¶ 24. Moreover, the Treaty prohibits operation of non-Treaty space to reduce Treaty flood control and hydroelectric power benefits. *Id.* He points out that the last non-Treaty agreement, which was executed in 1990 after a three-year process, expired in 2004, and that no agreement is in place to

allow BPA to provide a release from non-Treaty storage space. *Id.* ¶ 25-26 and 28. He notes that BPA and B.C. Hydro have had numerous preliminary discussions over the course of the past two years regarding a new long-term agreement or a seasonal agreement but that those discussions have not “been fruitful and have not led to on-going negotiations.” *Id.* ¶ 29. He also notes that B.C. Hydro itself has recently publicly stated that “reaching such an agreement is not imminent.” *Id.*

Based on these facts, it is Mr. Pendergrass’ opinion that BPA and B.C. Hydro have “fundamental and significant differences to overcome” before they can reach any agreement regarding non-Treaty storage. *Id.* ¶ 30. He concludes negotiating any such agreement “would be a lengthy process with no assurances of success or that a new agreement would enable storage use to meet Plaintiffs’ objectives.” *Id.* In short, Mr. Heinith is simply wrong in his opinion that “defendants should have the ability to work with their Canadian counterparts to arrange for storage and release” of the water.

Taking an additional 630,000 acre-feet of water from Banks Lake or Lake Roosevelt over the significant amount of flow augmentation already provided from those reservoirs would cause a range of adverse impacts. Fodrea Decl., ¶ 24. Such water cannot be provided without significant tradeoffs between Congressionally-authorized purposes. *Id.* ¶ 24. In 2004, BoR considered a 130,000 acre-feet drawdown (5-foot draft) from Banks Lake in addition to the 5-foot draft it already provides. Fodrea Decl., ¶ 34. In reaching a decision not to carry out the drawdown, it prepared an Environmental Impact Statement (“EIS”). *Id.* After fully considering the issue in the EIS, BoR determined that the drawdown would have significant negative impacts, not only to cultural resources as stated by Mr. Heinith, Heinith Decl. ¶ 15, but also to

vegetation, resident fish and wildlife, recreation, power production, and the local economy. *Id.* The BOR found that any limited benefits the additional water might provide as flow augmentation were outweighed by these adverse consequences. Fodrea Decl., ¶ 34 and Attachments D and E.

Further, as to Lake Roosevelt, taking an additional 500,000 acre-feet would result in lowering the Lake an additional 7 feet beyond the 10-12 feet that are already being drafted for flow augmentation. *Id.* ¶ 35. Lake Roosevelt is a National Recreation Area that attracts millions of visitors annually. *Id.* An additional draft would have significant impacts on this resource. *Id.* In addition, it would increase the risk of vandalism, looting, and damage to cultural resources. *Id.* Such impacts would be exacerbated if Grand Coulee were required to provide a deeper flood control draft to offset the reduced storage space in Canada. *See* Fodrea Decl., ¶ 23.

D. Plaintiffs' Proposed Interim Operations Are Not Narrowly Tailored.

If the Court were to embark down the path advocated by Plaintiffs, the changes to the operation of the FCRPS would be significant, harmful to listed and unlisted fish species, impact the reliability of the hydrosystem and economically costly. In addition to the legal and practical obstacles to implementing the measures Plaintiffs request, and the adverse impacts the requested relief would have on operations that benefit other listed species, there would be many other consequences that Plaintiffs fail to grapple with in making their request. These consequences would include: potentially increasing the risk of flooding; impacting the reliability and stability of the regional power supply and electrical transmission system; causing more frequent exceedances of water quality standards for total dissolved gas ("TDG"); and increasing power costs for consumers already facing increased energy costs.

Such consequences are unnecessary; salmon can be protected during the remand without the overly broad approach Plaintiffs advocate. Such consequences therefore must be avoided.^{27/} Because the operations planned for 2006 by the Action Agencies are more targeted to improving the return of the species affected by the 2004 Biological Opinion, while avoiding the adverse consequences of Plaintiffs' relief, the Court should not impose Plaintiffs' overly broad and inexpertly designed prescriptions.

1. Plaintiffs' Proposed Operations Would Place the Region at Increased Risk of Flooding.

Plaintiffs imply that their proposal to require FCRPS and Canadian projects at the URC on a bi-weekly basis would not increase risk of flooding, since they are not asking that reservoirs be filled *above* URC. However, Plaintiffs lack a solid understanding of the requirements necessary to maintain system-wide flood control, and their lack of understanding makes their proposal dangerous. The risk stems from two aspects of Plaintiffs' proposed measures.

First, the aspect of Plaintiffs' request that involves holding Canadian reservoirs at URC introduces a significantly increased risk of flooding. As explained in the Third Declaration of Cynthia Henriksen, the Corps' calculation of upper rule curves for each FCRPS storage reservoir is conditioned on particular assumptions about how much total flood control space is available system-wide (including the storage space in Canada). Henriksen Decl., ¶ 48. Because Canada's projects are typically not operated at or near their URCs, the Corps' calculations of the upper limits for FCRPS reservoirs take into account that the empty space in Canada is available

^{27/} *National Wildlife Federation v. National Marine Fisheries Service*, 422 F.3d at 800; *Meinhold v. USDOD*, 34 F.3d 1469, 1480 (9th Cir. 1994)(injunctive relief "should be no more burdensome to the defendant than necessary to provide complete relief to the plaintiffs").

to catch run-off in a high precipitation or run-off event. *Id.* If all Canadian reservoirs were operated at their URCs, and if Grand Coulee URC is developed without a compensating draft, the risk of flooding to the Portland/Vancouver area would be increased over current operations. *See* Henriksen Decl., ¶ 50; Fodrea Decl., ¶ 23.

Therefore, even if Plaintiffs' operation could be implemented (*i.e.*, if it were legal and Canada agreed to it under the Treaty), there would need to be a compensating offset in the storage space available at an FCRPS reservoir, most likely Grand Coulee, to avoid this increased risk of flooding. Henriksen Decl., ¶ 48; Fodrea Decl., ¶ 23. This would require a dramatic lowering of the elevation of the Grand Coulee reservoirs. *Id.* Such lowered levels would exacerbate the adverse impacts that already occur due to drafting the reservoirs in the ordinary course, including additional exposure of Native American cultural resources, lower levels for recreation, and adverse effects on resident fish that are an important resource for local Tribes. *Id.*

Second, Plaintiffs' proposal to target all FCRPS reservoirs to the URC on a bi-weekly instead of monthly basis introduces risk of flooding and other consequences, due to lack of good information to guide planning. *See* Henriksen Decl., ¶ 42-47. Since all the input data required to develop forecasts become available on a monthly (not bi-weekly) basis, *id.* ¶ 49, Plaintiffs' proposal could force operators to rely on the current month's water forecast only to find at mid-month that they have kept the reservoir too full and need to evacuate large amounts of water quickly, increasing involuntary spill that could contribute to TDG problems and the risk of damaging floods. *See* Henriksen Decl., ¶ 46.

2. Plaintiffs' Proposed Operations Would Contribute to Exceedances Of

TDG Water Quality Criteria.

Providing voluntary spill at the FCRPS Projects assists juvenile migration, but must be carefully monitored to avoid potential negative impacts to juvenile egress from the tailrace or to adult migrants.^{28/} Among the most important factors to be considered in managing spill is being cognizant of the water quality standard for total dissolved gas. The States of Washington and Oregon provide for exceptions to the 110 percent TDG standard for the limited purpose of providing voluntary spill to benefit fish, particularly for fish passage, which permit the levels of gas to go as high as 120 percent in the tailrace of any dam or 115 percent at the forebay of the next dam (whichever is exceeded first). Henriksen Decl., ¶ 22.

Plaintiffs attempt to remove TDG as an issue by stating that, although they are setting forth specific spill parameters at various dams that are higher than that called for under the 2004 BiOp, an implicit limitation is that spill not exceed the gas cap. *See* Pls' Mem. at 6. But the issue is not so easily solved as Plaintiffs would have the Court believe.

The Corps used the SYSTDG model (a regionally accepted, hourly time step model developed by the Corps) to evaluate the potential for TDG water quality exceedances from Plaintiffs' proposed operations as compared to 2004 BiOp operations. Henriksen Decl., ¶ 27. The evaluation showed that, if Plaintiffs' proposed operations were implemented according to the parameters specified in the request, the increased flows and higher volumes of spill 24 hours a day will cause gas load in the river to increase. *Id.* ¶ 28. Under Plaintiffs' proposed operations, the number of exceedances of the States' TDG waiver limits would be *twice* what

^{28/} Spill can impede adult migration, for example, by creating eddies in dam tailraces as happened at Little Goose under the Court-ordered spill program in 2005. Henriksen Decl. ¶ 21.

would result under the 2004 UPA. *Id.*

Plaintiffs may attempt to deflect this significant adverse effect of their proposal by suggesting that the Corps could simply ratchet down spill gradually until the levels return to an acceptable range. However, Plaintiffs fail to understand the complexity of the problem that will be created by these unprecedented high levels of spring spill, in context of the increased flows in the river from the other aspects of Plaintiffs' request. Indeed, the Corps ran the SYSTDG model again, this time with lower amounts of spill under both Plaintiffs' proposed spring operations and the Biological Opinion's operations. *Id.* ¶ 29. In general, the Corps found that in order to adjust operations under Plaintiffs' proposal to get TDG levels back within acceptable range, with the exception of Lower Granite and Ice Harbor dams²⁹, the requested spill volumes had to be reduced at all projects, some significantly. *Id.* This is not as simple a matter as it may seem, because adjusting spill at one project can have the adverse consequence of causing poor juvenile egress or other negative passage conditions for juveniles and adults. *Id.* ¶ 31. It would be difficult to model precisely which changes could be safely made, and would be vastly more complicated than the situation last summer in light of the greater number of projects affected and the higher flows in the river in the spring (compared to declining flows toward the end of the summer). *Id.*

3. Plaintiffs' Proposed Operations Would Adversely Impact the Reliability and Stability of the Regional Power Supply and Electrical Transmission System.

Plaintiffs' proposed measures, if implemented, also would adversely affect the reliability

²⁹ Lower Granite and Ice Harbor dams are the only two Corps projects that have RSWs. Henriksen Decl., ¶ 29.

and stability of the regional power and transmission system. Under such a proposal, the region's power and transmission systems will be strained and more likely to trip into unstable or unreliable conditions as a result of such measures, resulting in power emergencies.^{30/} See Declaration of Michael Viles ("Viles Decl."). The increased pressures placed on the transmission system^{31/} were vividly illustrated during the period of court-ordered increased spill in 2005, where significant increases in the amount of power that had to be carried over key constrained paths were observed. *Id.* at 7, 9-10, and Exhibits A and B. These impacts would be expected to be greater under Plaintiffs' proposed 2006 operations than they were for summer 2005. *Id.* at ¶ 4, 18-19, and Exhibit E. In short, the anticipated impacts would cause the transmission system "to operate closer to its reliability limits for longer periods of time," thereby increasing the risk of transmission problems actually occurring, including risk of a cascading outage. *Id.* ¶ 20.

In addition to contributing to transmission problems, a study recently released by the Northwest Power and Conservation Council analyzed Plaintiffs' proposed injunction and

^{30/} Power emergencies can be of two types: "generation" emergencies, which involve inability to generate sufficient energy to meet load (demand), and "transmission" emergencies, which involve inability to move power to where it is needed over the grid. Declaration of John D. Wellschlager ("Wellschlager Decl."), ¶ 13-15.

^{31/} Electrical generation in certain portions of the FCRPS would be reduced as a result of increased spill requirements and decreased ability to draft for power (if required to hold reservoirs at their upper flood control rule curves), thus increasing the amount of power that must be generated elsewhere in the system transmitted within the region over the transmission system. Viles Decl., ¶ 8-10, 18, and Exhibit E. This necessarily leads to significant increases in the amount of power transferred over key, constrained transmission paths, which are closely monitored due to their sensitivity to power outages and changes in operating conditions such as changes in generation patterns, load levels, *etc.* *Id.* ¶ 11, 18-19. Because these paths can safely transfer only a certain amount of power, increasing the traffic on them places the system at increased risk of transmission failure. *Id.* ¶ 12, 20. In addition, the reduced generation from the FCRPS has adverse impacts on the carrying capacity of the regional "interties" that allow power to be shifted from regions with excess power available to areas in need of power. *Id.* ¶ 4, 17, 19, 20.

concluded that, if implemented, it would likely increase potential power curtailments (interruptions to electric service). *See* Declaration of Steven R. Kerns (“Kerns Decl.”), ¶ 8 and 9. Under the current operating regime, there is almost no risk of such power curtailments, but under the proposed injunction, the probability would increase from near zero to seven and one-half percent. *Id.*

One of the many ways in which Plaintiffs’ proposal fails to reflect the realities of running the hydrosystem is their casual treatment of the need for the Action Agencies to react quickly to such power or transmission system emergency situations. They even suggest that the Court should order the Action Agencies to consult with Plaintiffs ahead of time before taking steps to address a power or transmission system emergency. *See* Pls’ Motion at 2 n.3; Pls’ Mem., n.10. As is described in the Declaration of John Wellschlager, however, that request is both unnecessary and inappropriate. A set of procedures for addressing power emergencies already exists, which is detailed in the Emergency Protocols appendix to the Action Agencies’ Water Management Plan. *Id.* ¶ 9, 12, and Exhibit 2.

As is explained in the protocols and in a recent explanatory supplement developed by the Action Agencies and shared with the Plaintiffs and TMT last summer as the Agencies worked through issues arising during the court-ordered increased spill, power emergencies can vary greatly as to the degree of urgency and the amount of time available to respond. *Id.* at ¶ 12 and Exhibits 1 and 2 (summer 2005 comments to priority action lists). A general guiding principle of the Action Agencies’ emergency response procedures, however, is to avoid reducing fish-benefitting operational measures except as a last resort. Wellschlager Decl. ¶ 10 and 20. Thus, where there is time available to do so and where it is feasible, BPA would attempt to buy power

on the market rather than decrease spill that was being provided for fish. *Id.* Exhibits 1 and 2.^{32/}

While the Action Agencies are committed to working through the Technical Management Team process to resolve certain kinds of issues where there are choices to be made and time to discuss them, the hydrosystem must be able to respond to emergencies sometimes in a matter of seconds. *Id.* ¶ 18. To avoid disruptions to the operation of the electrical system in the ordinary course, then, the Court should not be misled by Plaintiffs' casual treatment of these important issues that pose a risk to human health and safety.^{33/}

4. Plaintiffs' Proposed Operations Will Lead To Increased Power Costs and Potential Rate Increases.

Plaintiffs assume that implementing their proposed operations will not increase the cost of providing electrical power in the region. Indeed, they cynically observe that BPA was able to implement a small rate decrease this fiscal year, despite the costs of the Court-ordered increase in summer spill for 2005. *See* Pls' Mem. at 9 n. 7. What Plaintiffs fail to realize is that underlying the rate decrease is a confluence of fortunate circumstances that happened to allow

^{32/} However, the complex interactions of market prices, availability, and the timing of emergencies can sometimes make it infeasible to cover generation needs through market purchases. *See* Second Declaration of Paul E. Norman ("Norman Decl."), ¶ 23. In such circumstances, it is possible that BPA could lack sufficient cash flow to handle an emergency in that manner. *Id.* at 23.

^{33/} Plaintiffs are correct that in the course of Summer 2005, Federal Defendants took all reasonable steps to apprise Plaintiffs' counsel of circumstances that could have led to a power emergency (inability to meet demand, or "load"). These steps were taken because the Court's order did not on its face contemplate power emergencies and because the Action Agencies did not foresee the impacts to power emergency response planning that the relief requested in Summer 2005 might have so as to apprise the court in advance of its issuance of the June 10 order. Fortunately, no emergency materialized over the course of the summer because of the persistent efforts made by BPA to avert an emergency. *See* Wellschlager Decl. ¶ 8. However, that situation reflected the type whereby there was significant lead time (hours or days) to respond (*i.e.*, a "yellow" emergency). Although that potential emergency was averted, the risk of another power or transmission system emergency arising with a moment's notice was always there, nevertheless. The luxury of such a response would not have been available had there been a "red" emergency.

BPA to recover some of its lost revenues through increased value of power. *See* Norman Decl., ¶ 5.

In the absence of the increased cost and lost revenues stemming from the Court-ordered spill, BPA would have been able to offer a more substantial rate decrease to its customers. *Id.* It is important to keep in mind that BPA's current expenditures for fish and wildlife programs are already very significant, approximately \$690 million per year in the upcoming 2007-2009 rate period under the 2004 Biological Opinion, *id.* at 7, and thus already represent a significant portion of the average customer's electric bill. *Id.* at 13 (noting that the average household customer pays \$10 per month for fish and wildlife programs).

Given that BPA supplies approximately 40 percent of the region's power, many customers suffer when BPA rates increase. And, because consumers are already absorbing increasing costs of other forms of energy, such as natural gas, rate increases will hit particularly hard at this time, and will likely disproportionately impact those least able to afford it.³⁴ *Id.* ¶ 18.

IV. CONCLUSION

Federal Defendants have determined, based on a review of the best available science, that the 2004 UPA should be adjusted to change spill and transportation for 2006 to improve the potential for adult returns of chinook salmonids and steelhead. Plaintiffs have made no showing that their proposed interim operations are necessary to address the alleged violations of the ESA, particularly in light of the actions that will be implemented in 2006. They certainly have not

³⁴ In addition, one unintended but very real consequence of Plaintiffs' operation would be to increase reliance on sources of electricity that will significantly increase air emissions such fossil-fuel fired sources. *See* Norman Decl., ¶ 26. It will also have the unfortunate consequence of decreasing the region's flexibility to integrate renewable sources of generation such as wind power. *Id.* ¶ 29.

shown what harm caused by Federal Defendants' actions that they believe that their sweeping relief will remedy or more importantly that the relief is "narrowly tailored" to address the harm caused by the alleged violation.

The Ninth Circuit has made clear that "[m]andatory preliminary relief, which goes well beyond simply maintaining the *status quo* Pendente lite, is particularly disfavored. . . ." *Anderson v. United States*, 612 F.2d 1112, 1114 (9th Cir. 1979) (citation omitted); *Stanley v. University of Southern California*, 13 F.3d 1313, 1320 (9th Cir. 1994). Such requests for mandatory preliminary relief are subject to "heightened scrutiny." *Dahl v. HEM Pharmaceuticals Corp.*, 7 F.3d 1399, 1403 (9th Cir. 1993). Indeed, "when a mandatory preliminary injunction is requested, the district court should deny such relief, 'unless the facts and law clearly favor the moving party.'" *Stanley*, 13 F.3d at 1320 (citation omitted). Plaintiffs' broad, unsubstantiated claims that more spill and more flow will make things better for salmon fall well short of that mark.

Here, the science, supported by credible expert testimony, demonstrates that the 2006 Operations will be effective in increasing the returns of chinook and steelhead over the next year, and that the summer spill will spread the risk with regard to the Snake River Fall Chinook equally between spill and transportation. Moreover, the scope of those actions are carefully tailored to address any harms facing these stocks over this period. Plaintiffs have made no showing that their proposed relief is necessary, let alone "narrowly tailored," to address any harm flowing from the allegedly illegal biological opinion. *National Wildlife Federation v. National Marine Fisheries Service*, 422 F.3d at 800; *Lamb-Weston, Inc. v. McCain Foods, Ltd.*, 941 F.2d 970, 974 (9th Cir. 1991) ("Injunctive relief ... must be tailored to remedy the specific

harm alleged”).

RESPECTFULLY SUBMITTED,

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CERTIFICATE OF SERVICE

Pursuant to Local Rule Civil 100.13(c), and F.R. Civ. P. 5(d), I certify that on November 22, 2005, the foregoing “Defendants’ Response To Plaintiffs’ Motion For Further Injunctive Relief” will be electronically filed with the Court’s electronic court filing system, which will generate automatic service upon on all Parties enrolled to receive such notice. The following will be manually served by overnight mail:

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